July 18, 2001

Mr. Daniel O'Connor
Keihin IPT Manufacturing, Inc.
400 West New Road
Greenfield, Indiana 46140

Re: 059-14237
Fifth Administrative Amendment to
FESOP 059-9160-00013

Dear Mr. O'Connor:

Keihin IPT Manufacturing, Inc. was issued a FESOP on May 29, 1998 for a stationary automotive components manufacturing operation. A letter requesting a change in the permit was received on April 2, 2001, with additional information received on June 22, 2001, that was requested in the Notice of Deficiency (NOD) letter. The following additional new emission units will be subject to the provisions of 326 IAC 2-8-10(a)(14) which "incorporates a modification that adds an emission unit or units of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit or units, and have potential to emit less that the thresholds in 326 IAC 2-2 or 2-3". Therefore, the permit is hereby administratively amended as follows (changes are bolded and deletions are struck-through for emphasis):

(a) One (1) shell core sand molding machine;

(b) One (1) core knockout machine similar with the ones in place, and one (1) small secondary core knockout machine. One (1) machine will be controlled by one (1) existing dust collector, and one (1) machine will not be controlled.

The installation of the above emission units will increase the capacity of Unit 2 by 126 pounds per hour.

1. The Company name and address has been changed to:

Keihin IPT Manufacturing, Inc.
400 West New Road
Greenfield, Indiana 46140

2. Section A.2 and Section D.1 have been amended to incorporate the change as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(1) Eight (8) aluminum furnaces, identified as Unit 1, with a maximum capacity of 3,238 pounds of aluminum ingots and flux per hour, using a wet scrubber as control, exhausting to one (1) stack (EF-48);

(2) ~~Fourteen~~ **Fifteen** (1~~4~~ **5**) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area, ~~and nine~~ **ten** (~~9~~ **10**) core knockout machines,

and one (1) uncontrolled small tertiary knockout machine, identified as Unit 2, with a maximum capacity of ~~4,731~~ **4,857**pounds of aluminum and sand per hour, with the sand molding machines, aluminum casting machines and the die maintenance area controlled by three (3) baghouses, exhausting to three (3) stacks (EF-49, EF-101, and EF-107), and with the **ten (10)** core knockout machines controlled by ~~nine (9)~~ **ten (10)** dust collectors;

(3) One (1) throttle body shotblast, identified as Unit 3, with maximum capacity of 10,000 pounds of Zinc Shot per year, which exhausts ~~inside the plant~~ **through stack EF-117**;

(4) Mineral sprits machining and washing operations, identified as Unit 4, using one (1) Durr thermal oxidizer as control;

(5) Machining operations, identified as Unit 5, using a mist collector as control, exhausting to one (1) stack (EF-44);

(6) One (1) Electronic Control Unit (ECU) assembly operation, consisting of solder, resin and assembly operations, identified as Unit 6;

(7) One (1) Electronic Control Unit (ECU) maintenance operation, consisting of cleaning and repairing operations, identified as Unit 7; and

(8) One (1) maintenance and production cleaning operation, identified as Unit 8.

3. Section D.1 Facility description table is revised to reflect the changes made in Section A.2 as follows:

(1) Eight (8) aluminum furnaces, identified as Unit 1, with a maximum capacity of 3,238 pounds of aluminum ingots and flux per hour, using a wet scrubber as control, exhausting to one (1) stack (EF-48);
(2) ~~Fourteen~~ **Fifteen** (1~~4~~ **5**) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area, ~~and nine~~ **ten** (~~9~~ **10**) core knockout machines, **and one (1) uncontrolled small tertiary knockout machine**, identified as Unit 2, with a maximum capacity of ~~4,731~~ **4,857**pounds of aluminum and sand per hour, with the sand molding machines, aluminum casting machines and the die maintenance area controlled by three (3) baghouses, exhausting to three (3) stacks (EF-49, EF-101, and EF-107), and with the **ten (10)** core knockout machines controlled by ~~nine (9)~~ **ten (10)** dust collectors;
(3) One (1) throttle body shotblast, identified as Unit 3, with maximum capacity of 10,000 pounds of Zinc Shot per year, which exhausts ~~inside the plant~~ **through stack EF-117**;

4. Condition D.1.1 is revised to account for the new emission units and the increase in the throughput from Unit 2 as follows:

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2 (Process Operations):

(a) The particulate matter (PM) emissions from the eight (8) aluminum furnaces (Unit 1) shall be limited to 4.52 pounds per hour.

(b) The particulate matter (PM) emissions from the ~~fourteen~~ **fifteen** (1~~4~~ **5**) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area, ~~and nine~~ **ten** (~~9~~ **10**) core knockout machines **and one (1) uncontrolled small tertiary knockout machine** (Unit 2) shall be limited to ~~7.30~~ **7.4** pounds per hour, and

(c) The particulate matter (PM) emissions from the one (1) throttle body shotblast (Unit 3) shall be limited as established in the following equation:

These limits are based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

5. Condition D.1.3 is revised to account for the new emission units as follows:

D.1.3 Particulate Matter (PM)

Pursuant to 326 IAC 6-3-2:

(a) The wet scrubber for PM control shall be in operation at all times when the eight (8) aluminum furnaces (Unit 1) are in operation.

(b) The three (3) baghouses (**EF-49, EF-101, and EF-107)** for PM control shall be in operation at all times when the ~~fourteen~~ **fifteen** (1~~4~~ **5**) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area **are in operation.**

(c) The ten (~~9~~ **10**) **dust collectors for PM control shall be in operation at all times when the ten** ~~nine~~ **(~~9~~10) core knockout machines** (Unit 2) are in operation.

6. Condition D.1.4 is revised to account for the new emission units as follows:

D.1.4 Visible Emissions Notations

(a) Daily visible emission notations of the eight (8) aluminum furnaces, ~~fourteen~~ **fifteen** (1~~4~~ **5**) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area and ~~nine~~ **ten** (9 **10**) core knockout machines stack exhausts shall be performed once per operating day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

7. Condition D.1.5 is revised to account for the new emission units as follows:

D.1.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the three (3) baghouses **(EF-49,**

EF-101, and EF-107) used in conjunction with the ~~fourteen~~ **fifteen** (1~~4~~ **5**) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area ~~and nine (9) core knockout machines~~, at least once daily when the **fifteen** (1~~4~~ **5**) shell core sand molding machines, eighteen (18) aluminum casting machines, one (1) die maintenance area are in operation **and the total static pressure drop across the ten (10) dust collectors used in conjunction with the core knockout machines at least once daily when the core knockout machines are in operation**. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the three (3) baghouses **and the ten (10) dust collectors** shall be maintained within the range of 2.0 and 7.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

8. Condition D.1.1 is revised to account for the new emission units as follows:

D.1.8 Record Keeping Requirements

(a) To document compliance with Condition D.1.4, the Permittee shall maintain records of daily visible emission notations of the eight (8) aluminum furnaces, ~~fourteen~~ **fifteen** (~~14~~ **15**) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area and ~~nine~~ **ten** (~~9~~ **10**) core knockout machines stack exhausts.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Aida De Guzman, at (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
APD

cc: File - Hancock County
U.S. EPA, Region V
Hancock County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

Keihin IPT Manufacturing, Inc.
400 West New Road
Greenfield, Indiana 46140

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F059-9160-00013	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: May 29, 1998

First Minor Permit Modification 059-10290, issued March 22, 1999
First Administrative Amendment 059-11071, issued July 21, 1999
Second Administrative Amendment 059-11181, issued October 1, 1999
Third Administrative Amendment No.: 059-11862, issued March 20, 2000
Fourth Administrative Amendment No.: 059-12650, issued on October 13, 2000

Fifth Administrative Amendment No.: 059-14237	Pages Affected: 5, 27, 28 and 29
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: July 18, 2001

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary automotive components manufacturing operation.

Responsible Official:	Raymond E. Lindsey
Source Address:	400 West New Road, Greenfield, Indiana 46140
Mailing Address:	400 West New Road, Greenfield, Indiana 46140
SIC Code:	3714
County Location:	Hancock
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules;

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(1) Eight (8) aluminum furnaces, identified as Unit 1, with a maximum capacity of 3,238 pounds of aluminum ingots and flux per hour, using a wet scrubber as control, exhausting to one (1) stack (EF-48);

(2) Fifteen (15) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area, ten (10) core knockout machines, and one (1) uncontrolled small tertiary knockout machine, identified as Unit 2, with a maximum capacity of 4,857pounds of aluminum and sand per hour, with the sand molding machines, aluminum casting machines and the die maintenance area controlled by three (3) baghouses, exhausting to three (3) stacks (EF-49, EF-101, and EF-107), and with the ten (10) core knockout machines controlled by ten (10) dust collectors;

(3) One (1) throttle body shotblast, identified as Unit 3, with maximum capacity of 10,000 pounds of Zinc Shot per year, which exhausts through stack EF-117;

(4) Mineral sprits machining and washing operations, identified as Unit 4, using one (1) Durr thermal oxidizer as control;

(5) Machining operations, identified as Unit 5, using a mist collector as control, exhausting to one (1) stack (EF-44);

(6) One (1) Electronic Control Unit (ECU) assembly operation, consisting of solder, resin and assembly operations, identified as Unit 6;

(7) One (1) Electronic Control Unit (ECU) maintenance operation, consisting of cleaning and repairing operations, identified as Unit 7; and

(8) One (1) maintenance and production cleaning operation, identified as Unit 8.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(1) One (1) 6.0 million British thermal units per hour (mmBtu/hr) natural gas fired boiler;

SECTION D.1 FACILITY OPERATION CONDITIONS

(1) Eight (8) aluminum furnaces, identified as Unit 1, with a maximum capacity of 3,238 pounds of aluminum ingots and flux per hour, using a wet scrubber as control, exhausting to one (1) stack (EF-48);

(2) Fifteen (15) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area, ten (10) core knockout machines, and one (1) uncontrolled small tertiary knockout machine, identified as Unit 2, with a maximum capacity of 4,857pounds of aluminum and sand per hour, with the sand molding machines, aluminum casting machines and the die maintenance area controlled by three (3) baghouses, exhausting to three (3) stacks (EF-49, EF-101, and EF-107), and with the ten (10) core knockout machines controlled by ten (10) dust collectors;

(3) One (1) throttle body shotblast, identified as Unit 3, with maximum capacity of 10,000 pounds of Zinc Shot per year, which exhausts through stack EF-117;

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2 (Process Operations):

(a) The particulate matter (PM) emissions from the eight (8) aluminum furnaces (Unit 1) shall be limited to 4.52 pounds per hour.

(b) The particulate matter (PM) emissions from the fifteen (5) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area, ten (10) core knockout machines and one (1) uncontrolled small tertiary knockout machine (Unit 2) shall be limited to 7.4 pounds per hour, and

(c) The particulate matter (PM) emissions from the one (1) throttle body shotblast (Unit 3) shall be limited as established in the following equation:

These limits are based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Compliance Determination Requirements

D.1.2 Testing Requirements [326 IAC 2-8-5(1)]

Testing of this facility is not required by this permit. However, if testing is required, compliance with the particulate matter limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing. This does not preclude testing requirements on this facility under 326 IAC 2-8-4 and 326 IAC 2-8-5.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.3 Particulate Matter (PM)

Pursuant to 326 IAC 6-3-2:

(a) The wet scrubber for PM control shall be in operation at all times when the eight (8) aluminum furnaces (Unit 1) are in operation.

(b) The three (3) baghouses (EF-49, EF-101, and EF-107) for PM control shall be in operation at all times when the fifteen (15) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area are in operation; and

(c) The ten (10) dust collectors for PM control shall be in operation at all times when the ten (10) core knockout machines (Unit 2) are in operation.

D.1.4 Visible Emissions Notations

(a) Daily visible emission notations of the eight (8) aluminum furnaces, fifteen (15) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area and ten (10) core knockout machines stack exhausts shall be performed once per operating day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.5 Parametric Monitoring

The Permittee shall record the total static pressure drop across the three (3) baghouses (EF-49, EF-101, and EF-107) used in conjunction with the fifteen (15) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area, at least once daily when the fifteen (15) shell core sand molding machines, eighteen (18) aluminum casting machines, one (1) die maintenance area are in operation and the total static pressure drop across the ten (10) dust collectors used in conjunction with the core knockout machines at least once daily when the core knockout machines are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the three (3) baghouses and the ten (10) dust collectors shall be maintained within the range of 2.0 and 7.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

D.1.6 Broken Bag or Failure Detection

In the event that bag and/or dust collector failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced.

(b) Based upon the findings of the inspection, any additional response steps will be devised within eight (8) hours of discovery and will include a timetable for completion.

D.1.7 Wet Scrubber Inspections

An inspection shall be performed each calender quarter of the wet scrubber controlling the eight (8) aluminum furnaces.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.8 Record Keeping Requirements

(a) To document compliance with Condition D.1.4, the Permittee shall maintain records of daily visible emission notations of the eight (8) aluminum furnaces, fifteen (15) shell core sand molding machines, twenty (20) aluminum casting machines, one (1) die maintenance area and ten (10) core knockout machines stack exhausts.

(b) To document compliance with Condition D.1.5, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle: frequency and differential pressure.

(2) Documentation of all response steps implemented, per event.

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

EMISSION CALCULATIONS

Source Name: Keihin IPT Manufacturing, Inc.
Source Location: 400 West New Road, Greenfield, Indiana 46140
County: Hancock
SIC Code: 3714
Operation Permit No.: F059-9160-00013 Issuance Date: May 29, 1998
5th Administrative Amendment No.: AA059-14237
Permit Reviewer: Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an Administrative Amendment application from Keihin IPT Manufacturing, Inc., relating to the construction and operation of the following additional emission units to be utilized in the automotive components production:

(a) One (1) new shell core sand molding machine;

(b) Two (2) core knockout machines;

(c) Increase in the maximum capacity of Unit 2 in Section D.1 from 4,731 pounds of aluminum and sand per hour to 4,857 pounds of aluminum and sand per hour; and

(d) Change in the description for the exhaust of Unit 3 to indicate that it will exhaust through stack EF-117. Unit 3 currently exhausts inside the plant.

Emission Calculations:

Emission calculation will be based on the increase in the capacity of 126 pounds of metal and sand per hour (0.063 ton/hour) for the whole Unit 2.

(a) Sand Handling: Emissions that will result from the increase in capacity of Unit 2 by 126 pounds per hour.

3.5 lb PM(PM10)/ton sand * 0.063 ton/hour * 8760 hrs/yr * ton/2000 lb = 0.96 ton/yr

(b) One (1) New Core Molding/Baking: The increase of 126 pounds per hour of metal will be handled by the proposed one (1) shell core sand molding machine.

1.1 lb PM(PM10)/ton metal * 0.063 ton/hr * 8760 hrs/yr * ton/2000 lb = 0.30 ton/yr

(c) Core Knockout/Shakeout:

3.42 lb PM(PM10)/ton metal * 0.063 ton/hr * 8760 hrs/yr * ton/2000 lb = 0.94 ton/yr

Total Uncontrolled PM(PM10) Emissions = 0.96 ton/yr + 0.30 ton/yr + 9.4 ton/yr
= 2.2 tons/yr

The existing baghouses have control efficiency of 99%.

Total Controlled PM(PM10) Emissions = 2.2 tons/yr (1-.99)
= 0.022 ton/yr